case study

The July 2003 issue of dpdINFO featured a case study on the Carkeek Park Environmental Learning Center, the City of Seattle's first LEEDTM Gold-certified building. This month's feature highlights the nation's first LEEDTM certified affordable housing project in Seattle's Belltown neighborhood.

terrace to

the nation's first $LEED^{TM}$ certified affordable housing



Traugott Terrace is located at 2313 Third Ave. above the Matt Talbot Center. It was built by Catholic Community Services (CCS) and the Archdiocesan Housing Authority (AHA).

Background Information

- Traugott Terrace provides 50 affordable housing units for individuals with incomes up to 30 percent of the median, many of whom have been homeless and are striving to regain a healthy life. Traugott has 12 transitional units, 22 studios, and 16 one-bedroom units for men and women.
- The Matt Talbot Center provides a variety of services to individuals in drug and alcohol recovery to help them achieve self-sufficiency.
- CCS is the state's largest local private provider of assistance to the poor and vulnerable.
- AHA develops and manages housing options for low income, homeless and special needs individuals and families in Western Washington.

Traugott Terrace, Seattle's newest affordable housing project, opens with two important firsts to its credit: it is the first "clean and sober" affordable housing project of its kind developed in Washington state, and it is the first LEED™certified affordable housing project in the United States. Surprisingly, it was also built within a very tight budget.

This ground-breaking project also demonstrates that sound business decisions can support environmental, social, and economic goals, and that these goals can be complimentary, rather than competitive.

Traugott Terrace was partially funded by the City's Office of Housing (OH), which partnered early with the Archdiocesan Hous-

ing Authority (AHA) to encourage the project team to embrace environmentally responsible design. The development team and owners were already committed to these goals and viewed sustainable building as a framework that could be embraced to help improve long-term durability, reduce operating costs, and provide a healthy environment for the individuals living at Traugott while in recovery.

AHA is committed to providing environments "for people to live with dignity," so the primary design strategy was to create an uplifting and healthy environment. The team, lead by architec-

"Traugott Terrace offers us a unique opportunity to provide an eco-friendly environment for persons who have found new hope in their lives. It also expresses our commitment to being good stewards of our region's natural resources."

Michael Reichert, President Catholic Community Services & Archdiocesan Housing Authority

tural firm Environmental Works, focused on natural daylight to create a light, airy and comfortable atmosphere. The daylight design was challenging because the property is located mid-block on Third Avenue, but designing around an alley-facing courtyard provides daylight in 90 percent of the living and common spaces.

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Project budgets for affordable housing are tight, but the project team was able to achieve its sustainable building goals within budget. In fact, the bid came in under the project budget of \$6.4 million, allowing several features to be upgraded to improve durability and energy performance and create a healthier indoor environment. Over \$200,000 of upgrades were directed towards three features: super energy efficient, operable windows and sliding doors, a KONE gearless-traction elevator instead of a hydraulic model, and linoleum flooring to replace vinyl.

Traugott received technical assistance from OH and Seattle City Light (SCL), and took advantage of two incentive programs, receiving over \$36,000 in energy efficiency rebates through SCL's Built Smart program and \$15,000 through the City's LEED TM Incentive Program.

This project proved that green building can be cost-effective, improve durability and provide high quality, healthy environments.

Green Features

Here are just a few sustainability features the Traugott Terrace team is pleased to report:

- Annual energy savings estimated at over 25% beyond the ASHRAE 90.1 standard for a comparable building. Energy efficiency was optimized by integrating a number of strategies, including: high performance building envelope with a better insulation package in the walls and roof and super efficiency windows and sliding doors; daylight design and energy efficient lighting; KONE gearless-traction elevator; heat recovery ventilator for replacement air in common spaces; reduced hot water heating requirements; and, Energy Start roof coating to reduce solar absorption.
- Water use reduced 33% by installing low-flow plumbing fixtures, which also saved over \$9,000 in yearly hot water heating.
- Healthy indoor environments created by illuminating the space with natural daylight and carefully selecting building materials that enhance health, such as low-VOC paints, coatings and adhesives, and natural materials like linoleum.
- Natural resources conserved by recycling over 75% of construction waste, and specifying recycled-content materials like carpet, gypsum wallboard, acoustic ceiling tiles, insulation steel siding and structural steel, and concrete with fly-ash replacement for cement.
- Forests and biodiversity protected by specifying wood products harvested from sustainably well-managed forests certified by the Forest Stewardship Council.
- Exterior light pollution minimized by directing the light only where it is needed for safety and security.

SUSTAINABLE BUILDING



Designing around an alley-facing courtyard enabled daylight to reach 90 percent of the living and common spaces.

For More Information

To explore DPD's role in sustainable building, visit www.seattle.gov/dpd/sustainability or contact:

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For more information on the groups mentioned in this article, visit:

- Catholic Community Services and Archdiocesan Housing Authority – www.ccsww.org
- City of Seattle Sustainable Building Program — www.seattle.gov/ sustainablebuilding
- City of Seattle Office of Housing www.seattle.gov/housing
- "SeaGreen: Greening Seattle's
 Affordable Housing" www.seattle.
 gov/housing/07-FreePublications/
 SeaGreen.pdf
- Seattle City Light's Built Smart
 Program www.seattle.gov/light/conserve/resident/cv5 bs.html
- LEED[™] Incentive Program www.seattle.gov/light/conserve/ sustainability/leed